ABSTRACT

[1057] Techniques for scalable CDMA demodulation with maximum response latency are disclosed. In one aspect, a finger timing unit generates signals indicating cycle boundaries for a plurality of fingers, and an offline processing unit processes stored samples for those fingers in response to the signals. In another aspect, incoming samples are stored in a RAM, while finger timing is maintained using a plurality of counters. The RAM address is stored on symbol boundaries. Symbols for each finger are generated in an offline processing unit, clocked at a higher speed than the finger counters, from a RAM location computed using the stored RAM address. Various other aspects are also presented. These aspects provide for decoupling of the chip rate processing from chip time, which allows a single offline processing unit to service a plurality of fingers, thus reducing additional hardware required to support additional fingers while maintaining maximum latency requirements.